

In the Drawings:

The attached sheets of drawings include changes to Fig. 2. This sheet replaces the original sheet containing Fig. 2. In this Figure, one of the duplications of the word "downstream" has been removed for clarity. The remaining replacement sheets are submitted as formal drawings and should replace the originally filed Figures.

REMARKS

Favorable consideration of this application is respectfully requested.

Claims 1-16 and 18-25 are currently active in this case. Claims 1, 21 and 22 have been amended, claim 17 has been cancelled and claims 23-25 have been added by way of the present amendment. Each new and amended claim is supported by the specification and claims as originally submitted and no new matter has been added.

In the outstanding Official Action, the specification, drawings and Claim 6 were objected to; the pending claims were rejected under 35 U.S.C. §102(e) over *Quigley et al.* (U.S. Patent No. 6,650,624, hereinafter *Quigley*); and a combination under 35 U.S.C. §103(a) over *Quigley* in view of *Houck et al.* (U.S. Patent No. 5,920,571, hereinafter *Houck*). However, claim 21 was identified as containing allowable subject matter.

Applicants appreciatively acknowledge the identification of allowable subject matter in Claim 21. Claim 21 has been amended to be in independent form including all the limitations of its base claim, thereby incorporating all of the allowable subject matter. Accordingly, Applicants respectfully submit that Claim 21 is patentable over the cited references.

Applicants respectfully traverse the rejection of Claim 1 as being unpatentable over *Quigley*. As amended, Claim 1 recites:

1. A method for distributed upstream quality of service (QOS) processing in a broadband access system, the method comprising:

measuring a quality of received packets sent by a modem in an upstream channel at an upstream modem termination system;

determining whether the measured quality is within a predetermined range;

reporting an out-of-range quality for the received packets to a network management server; and

modifying operating parameters for the upstream channel in accordance with the measured quality, if an out-of-range quality is reported;

wherein the out-of-range quality reported includes a measured quality above a high quality threshold and is reported at a higher priority than measured qualities below a low quality threshold.

However, the cited reference fails to teach or suggest similar subject matter.

In particular, Applicants respectfully note that *Quigley* fails to teach or fairly suggest a broadband access system having an out-of-range quality report where the “out-of-range quality reported includes a measured quality above a high quality threshold and is reported at a higher priority than measured qualities below a low quality threshold.” However, the same is specifically recited in Claim 1. Therefore, Applicants respectfully submit that Claim 1 cannot be anticipated or rendered obvious by *Quigley*.

Applicants respectfully traverse the rejection of Claim 22 as being unpatentable over *Quigley* in view of *Perreault*. As amended, Claim 22 recites:

A method for distributed processing for optimal quality of service (QOS) in a broadband access system, the method comprising:

a method for distributed upstream quality of service (QOS) processing, the method comprising:

measuring a quality of received packets sent by a modem in an upstream channel at an upstream modem termination system;

determining whether the measured quality is within a predetermined range;

reporting an out-of-range quality for the received packets to a network management server; and

modifying operating parameters for the upstream channel in accordance with the measured quality, if an out-of-range quality is reported; and

a method for distributed downstream quality of service (QOS) processing, the method comprising:

measuring a quality of received packets in a downstream channel at a modem;

comparing the measured quality with predetermined boundary conditions;

determining whether the measured quality is within the predetermined boundary conditions;

sending an exception to a network management server, if the measured quality is outside the boundary conditions; and

modifying operating parameters for the downstream channel in accordance with the measured quality;

***wherein:
the exception is sent,
at a first priority if the measured quality is below and
outside the boundary conditions; and
at a second priority if the measured quality is
above and outside the boundary conditions; and
the first priority is higher than the second priority.***

However, the cited reference fails to teach or suggest similar subject matter.

In particular, Applicants respectfully note that the combination of Quigley and *Perreault* fails to teach or fairly suggest a broadband access system having an out-of-range quality report where an exception is sent to a network management server *"at a first priority if the measured quality is below and outside the boundary conditions, and at a second priority if the measured quality is above and outside the boundary conditions; and the first priority is higher than the second priority."* However, the same is specifically recited in Claim 22. Therefore, Applicants respectfully submit that Claim 22 cannot be anticipated or rendered obvious by the cited references.

Based on the patentability of independent claims 1, 21, and 22, Applicants respectfully submit that dependent claims 2-16, 18-20, and 23-25 are also patentable.

Consequently, no further issues are believed to be outstanding, and it is respectfully submitted that this case is in condition for allowance. An early and favorable action is respectfully requested.

Respectfully submitted,
REED SMITH LLP

Dated: _____

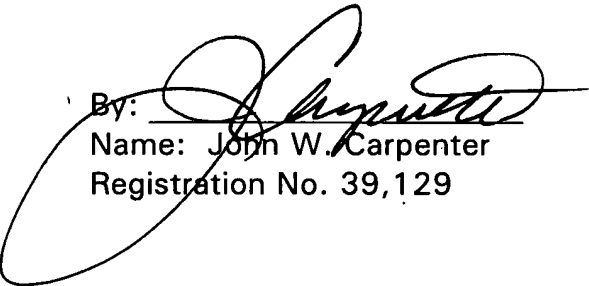
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